

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation

**Federal Aviation
Administration**

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www.faa.gov/certification/aircraft

This is information only. Recommendations aren't mandatory.

Introduction

We are issuing this Special Airworthiness Information Bulletin to inform you, owners and operators of certain airplanes (see Table 1) with **Wright Aeronautical Division, Curtiss-**

Wright Corp. model R-1820 engines

installed, of additional information relating to an Unapproved Parts Notification (UPN). The UPN has designated certain cylinders on Wright model R-1820 engines as Suspected Unapproved Parts (SUPS).

Table 1

Affected Aircraft	Engine Model	Engine SN	Cylinder SN (Airpower, Inc.)
Buehn, Dennis G. HU-16 (UF-1) series (formerly Grumman) and SA-16A (formerly Grumman)	R-1820-76	BL510087	AP5111, 5112, 5114, 5116, 5121, 5123, 5124 and 5126
Douglas Aircraft Co., Inc. DC-3	R-1820-80	W507451	AP4988, 4989, 4990, 4991, 4992, 4993 and 4994
		W507573	AP4882, 4940, 4964, 4965 and 4967
		W507589	AP4498, 4937, 4966, 4969, 4970, 4972 and 4974
California Department of Forestry S-2 (formerly Marsh Aviation Co. and Grumman) and TS-2A (formerly Grumman)	R-1820-82	BL515782	AP5021
		BL516585	AP3753, 3758, 3764, 4497, 4869 and 4883
		BL516700	AP2595, 4973 and 4995
		PC10037	AP2139, 5036, 5038, 5039, 5041, 5042, 5051 and 5052
		PC10045C	AP3323, 5059, 5066, 5068, 5074, 5077, 5078 and 5079
		PC10098C	AP5001, 5003, 5004, 5005, 5006, 5022, 5024 and 5025
		PC10179C	AP5034 and 5035
		PC10184C	AP5044, 5065, 5069, 5075 and 5076
		PC10223	AP5037, 5040, 5043, 5056, 5057, 5060, 5062 and 5064
		PC10245C	AP4867, 4902, 4907 and 4909
		PC10259	AP2975, 4980 and 4985
		PC10268C	AP2978, 4908, 4911 and 5071

Thompson Aircraft Sales T-28 (formerly North American Aviation)	R-1820-86	BL520708	AP3401, 4800, 4816, 4842 and 4910
		BL520779	AP3037

Background

During the period of January 2002 to August 2004, West Coast Cylinder Works (West Coast Cylinder), found at 13907 Marquardt Avenue, Santa Fe Springs, CA 90670, did not properly inspect cylinders for Wright R-1820-76, -80, -82 and -86 engines. There is evidence they didn't perform a Fluorescent Penetrant Inspection (FPI) on certain cylinders, as required by the process specification we approved. These cylinders were subsequently sold as spares or installed on engines that Airpower, Inc. overhauled and returned to service. Airpower, Inc. is an FAA certificated repair station, NS3R721L, located at 4745 Highland Springs Road, Lakeport, CA 95453.

We issued Unapproved Parts Notification (UPN), No. 2004-00210, on February 1, 2005. The UPN has a partial listing of engine and cylinder serial numbers, as well as the type airplane on which the engine was installed.

West Coast Cylinder sold the cylinders listed in Table 2, identified by SN, as spares for the R-1820-82 used on the S-2 and TS-2A.

Table 2

AP2976	4870	4935	4978
3030	4912	4936	4996
3336	4924	4937	4997
4130	4930	4939	5054
4636	4931	4941	5061
4806	4932	4942	5063
4866	4933	4953	5073
4868	4934	4977	

Recommendation

We recommend that you perform a compression check on each cylinder identified by SN in the table or the spare cylinders listed above at 100 hours time-in-service (TIS) intervals. In addition, we recommend you perform a visual inspection for oil leaks, combustion "blow-by," etc. at intervals of 25 hours TIS.

For Further Information, Contact

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